



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

JAN 29 2010

REPLY TO THE ATTENTION OF:

E-19J

Chief, Rulemaking, Directives, and Editing Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, DC 20555-0001

RE: Comments on the Draft Plant-Specific Supplement 39 to the Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants Regarding Prairie Island Nuclear Generating Plant (PINGP), Units 1 and 2, Goodhue County, Minnesota, NUREG-1437, CEQ # 20090402

Dear Chief, Rulemaking, Directives, and Editing Branch:

The U.S. Environmental Protection Agency has received the document listed above. Under the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations, and Section 309 of the Clean Air Act, EPA reviews and comments on major federal actions.

The Nuclear Regulatory Commission (NRC) developed the GEIS to streamline the license renewal process on the premise that environmental impacts of most nuclear power plant license renewals are similar. NRC develops facility-specific supplemental environmental impact statement documents as the facilities apply for license renewal. EPA provided comments on the GEIS during its development process in 1992 and 1996. We have reviewed the above-referenced facility-specific project, which we will refer to as the Draft Supplemental Environmental Impact Statement (SEIS).

EPA has rated the Draft SEIS as EC-2 (Environmental Concerns-Insufficient Information). The rating definitions are provided in the enclosure, "*Draft Environmental Impact Statement Rating Definitions*". We have provided our comments in the enclosure entitled, "*EPA's Detailed Comments on PINGP units 1 and 2 Draft SEIS*". Our main concerns include: adequacy and clarity of the radiological impacts and risk estimates, emergency access, environmental justice, cumulative impacts, postulated accidents, abnormal effluent releases, decommissioning, wetlands, floodplains, noise, clean diesel, green building/sustainable development, and some general items.

The Draft SEIS presents 5 Action Alternatives and one No-Action Alternative. Although there are 5 Action Alternatives presented in the Draft SEIS, the purpose of the document is for the NRC to provide a preliminary recommendation on preserving the option of license renewal for energy planning decision makers. The Proposed Action (Alternative) does preliminarily recommend license renewal of PINGP 1 and 2 for an additional 20 years. (The licenses of PINGP 1 and 2 expire on August 9, 2013 and on October 29, 2014, respectively). In the No-Action Alternative, the licenses would not be renewed and the facility would have to be shut

down on or before the current operating license expiration dates. The other 4 Action Alternatives are as follows: Gas-Fired Combined-Cycle Power Generation at the PINGP site, Gas-Fired Combined-Cycle Power Generation at an alternate site, Combination Alternative 1 (includes gas-fired unit, wind power, wood-fired generation, and conservation measures), Combination Alternative 2 (includes PINGP Unit 1 or 2 license renewal-not both, wind power, conservation measures).

Background information

The PINGP is located on the west bank of the Mississippi River within the city limits of Red Wing, Minnesota. Minneapolis and St. Paul are located approximately 39 miles and 32 miles respectively, to the northwest of the plant. The Prairie Island Indian Community (PIIC) is located immediately north of the PINGP. The PINGP site is approximately 578 acres of land, owned by Northern States Power (NSP). The developed portion is 60 acres. There are 180 acres of landscaping and 338 wooded acres.

The PINGP is a 2-unit pressurized water reactor plant that utilizes a hybrid cooling system which consists of 3 modes of operation. The plant is licensed to operate at 1650 megawatts-thermal per unit or 575 megawatts-electrical of gross electrical output per unit.

There are four natural draft cooling towers on the site. An Independent Spent Fuel Storage Installation (ISFSI) is located on the site. The ISFSI has 24 dry-storage containers of spent fuel.

The Prairie Island Indian community (PIIC) and the Nuclear Regulatory Commission have established a Cooperating Agency relationship through a Memorandum of Understanding. The PIIC has contributed to the Draft SEIS in the areas of historic and archaeological resources, socioeconomics, land use, and environmental justice as they relate to license renewal for PINGP 1 and 2.

Thank you for the opportunity to review your project. If you have any questions regarding EPA's comments, please contact Julie Guenther at (312) 886-3172 or email her at guenther.julia@epa.gov.

Sincerely,



Kenneth A. Westlake
Supervisor, NEPA Implementation
Office of Enforcement and Compliance Assurance

cc: Heather Westra
Prairie Island Indian Community
5636 Sturgeon Lake Road
Welch, MN 55089

Elaine Keegan
US Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Mail Stop O-11F1
Washington, DC 20555-001

Enclosures

Adequacy and Clarity of the Radiological Impacts and Risk Estimates

Pages 1-12 through 1-13; 1.10 References: The applicable or relevant and appropriate regulations found at 40 CFR 190, 40 CFR 140, 40 CFR 141, and 40 CFR 61, Subpart I should be added into the reference section.

Page 4-17; 4.8 Human Health; Table 4-11 Human Health Issues: All of the values referenced should be provided along with a written summary of how thresholds were derived. Providing these values will make this document more transparent to the reader.

Page 4-19; 4.8.1 Generic Human Health Issues: In addition to providing the exact values for tritium ranges, the actual relative risk, (which is an increase to the base risk from all background radiation) should be provided quantitatively. This will provide a better comparison for the general public to understand the actual increase of radiation exposure to them from the operation of PINGP.

Page 4-20; 4.8.1 Generic Human Health Issues; Lines 23-39: Providing these values is helpful for comparisons. However, the maximum dose to individuals for the exposure to *each* radionuclide as well as the combined dose would be helpful for individuals to compare risks. We recommend combining the dose for all exposure pathways for any individual and give an actual quantity of increased risk.

Pages 4-42 and 4-43; 4.9.7 Environmental Justice; Human Health Impacts; Lines 44-47, and 1-20: Providing these value ranges for the tritium values along with the drinking water standard for comparison is very helpful. We recommend adding in the additional residual risk from these values to further show risk minimization. In other words, there is a base risk for everyone. Please provide a quantity of relative increased risk due to the operation of PINGP.

Pages 4-46 and 4-47; 4.11 Cumulative Impacts; Lines 41-45 and 1-7: We recommend providing the initial projected risk number for the original 40-year license and then the increased risk for the additional 20 years of relicensing. By discussing the accumulated data over the current life of the existing license, a better understanding of additional residual risk posed by this facility will be provided.

Pages 4-50 and 4-51; 4.11.3 Cumulative Human Health Impacts; Lines 28-47 and 1-19: Please provide the specific radionuclides (and their quantities) that are anticipated to be part of the liquid and gaseous radioactive effluents being discharged and the solid radioactive waste generated. This would be helpful for the additional risk comparison of replacing the steam generators.

Emergency Access

The PIIC only has one exit, which is crossed by train tracks. These tracks are heavily used by freight and passenger trains. The island should have an exit road not crossed by a rail line to provide safe and timely emergency access and exit in the event of a catastrophic release. Please work with the PIIC to provide the solution to this problem in the Final SEIS. In addition,

please engage the tribe in a meaningful way to aid the PIIC in planning their future should there be a catastrophic release.

Environmental Justice

We recommend that NSP commit to the mitigation discussed on page 3-8, lines 12-20 which pertain to the increased traffic impacts through the PIIC during refurbishment. The mitigation items discussed are: staggering work schedules, using personnel to direct traffic, and coordinating event schedules with the PIIC.

We understand that NSP is currently seeking comment from the Minnesota Historical Society, the Bureau of Indian Affairs, the Office of the State Archaeologist, and the PIIC on NSP's revised procedures to improve its protection of archaeological resources. We encourage NSP to follow through with their collaboration with other agencies and stakeholders to mitigate impacts to archaeological resources. We commend NSP for initiating corrective actions that include the training of employees and staff to ensure that excavation and trenching control procedures are being followed (page 4-32, lines 11-14). What will be done to ensure that future employees are trained and existing employees have training refresher courses?

Cumulative Impacts

Section 4.11, Cumulative Impacts, should include the power uprate at PINGP and the addition of dry storage casks for spent fuel as "reasonably foreseeable" future projects. These two projects should be considered when analyzing the impacts on the resources discussed in this Section.

Please discuss any health studies pertaining to populations living near nuclear power plants which have been conducted since the GEIS. Explain how these studies relate to the human health impacts for populations near PINGP.

Postulated Accidents

Please explain what is meant by the following statement on page 5-3, lines 41-43: "The potentially cost-beneficial SAMAs do not relate to adequately managing the effects of aging during the period of extended operation; therefore, they need not be implemented as part of license renewal pursuant to 10 CFR Part 54."

Discuss how increased frequency and severity of weather events due to climate change may affect the safety of the PINGP and impact the environment.

Abnormal Effluent Releases

On page 4-44, lines 4-11 the PIIC, as a cooperating agency, describes an accident that took place in 1979 at PINGP. At that time, the PIIC was not notified of the accident and learned about it later on the television news. Have the procedures for public notification changed since 1979? Are these procedures discussed in the GEIS? If this same type of accident happened today, at what point would the PIIC be notified?

Decommissioning

Page 7-1; Environmental Impacts of Decommissioning; Table 7-1: Issues Related Decommissioning; Lines 20-23: The reference should also include a short summary of the anticipated radiation doses, the waste management strategy, air quality issues, water quality issues, ecological resources issues, the spent nuclear fuel stored on-site, and socioeconomic impacts, instead of only this citation.

Wetlands

The Final SEIS should clarify if any wetlands will be directly or indirectly impacted during refurbishment activities. If there are wetlands present in the refurbishment project area, the Final SEIS should disclose the quantities and types of wetland affected, propose suitable mitigation, and discuss the Clean Water Act Section 404 Permit that will be required.

Floodplains

The Final SEIS should clarify if any floodplains will be directly or indirectly impacted during refurbishment activities. If there are floodplains present in the refurbishment project area, the Final SEIS should disclose the quantities impacted and discuss any required permits.

Noise

The Draft SEIS states that, "... noise levels may sometimes exceed the 55 dBA level that the EPA uses as a threshold level to protect against excess noise during outdoor activities (EPA 1974)." Has any noise monitoring been done at PINGP or for purposes of the GEIS? If so, what are the results?

Clean Diesel

We recommend the NEPA document identify opportunities for the project proponents to use clean diesel equipment, vehicles and fuels in construction of the project. We

recommend the project proponents consider implementing one or more of the following measures when feasible:

- Reduce emissions of diesel particulate matter (DPM) and other air pollutants by using particle traps and other technological or operational methods. Control technologies, such as traps, control approximately 80 percent of DPM. Specialized catalytic converters (oxidation catalysts) control approximately 20 percent of DPM, 40 percent of carbon monoxide emissions, and 50 percent of hydrocarbon emissions.
- Ensure that diesel-powered construction equipment is properly tuned and maintained, and shut off when not in direct use.
- Prohibit engine tampering to increase horsepower.
- Locate diesel engines, motors, and equipment as far as possible from residential areas and sensitive receptors (e.g., schools, daycare centers, and hospitals).
- Require low sulfur diesel fuel (<15 parts per million), if available.
- Reduce construction-related trips of workers and equipment, including trucks.
- Lease or buy newer, cleaner equipment (1996 or newer model), using a minimum of 75 percent of the equipment's total horsepower.
- Use engine types such as electric, liquefied gas, hydrogen fuel cells, and/or alternative diesel formulations, if feasible.

Green Building/Sustainable Development

The refurbishment project at PINGP will construct new warehouses, we encourage building to Leadership in Energy and Environmental Design (LEED) standards. Is the NRC committed to a LEED building standard? If so, which LEED standard?

We suggest using native plants for revegetation purposes after refurbishment (page 3-3, line 43). We also suggest replacing lawn with native plants whenever possible. Native plants can help eliminate lawn watering (page 2-23, lines 2 and 3). We suggest making a commitment to recycling "common waste materials" (page 2-10, lines 24 through 31).

General

Overall, the Draft SEIS is more streamlined and follows the requirements of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) and Paperwork Elimination Act of 1998 as compared to nuclear power plant relicensing EIS's that Region 5 has reviewed in the past five years.

The Draft SEIS needs to adhere to the government-wide requirement for documents to be written in plain language. The Draft SEIS includes bureaucratic boilerplate language instead of

plain language. For example, page 4-19, lines 41 and 42 states, "MDH data indicates that neutron levels increased between 2006 and 2007, which is attributed to the addition of two casks to the ISFSI in 2006." Another example, page 4-20, line 14 uses the term, "maximally exposed individual". Briefly define "maximally exposed individual" in plain language.

The Draft SEIS does not adequately incorporate government-wide directives and laws regarding data quality. Specifically, the Draft SEIS does not adequately meet the requirement in OMB Circulars A-119 and A-130, PDD39 and PDD63, and the Clinger-Cohen Act of 1996, Information Quality Act of 2001, and the National Technology Transfer and Advancement Act of 1995. All of these direct Federal Agencies to use the best available quality data in all of the determinations for actions taken by or sanctioned by the Federal Government. Referring to the GEIS within the Draft SEIS, does not always fulfill "best available quality data".

When regulatory dose limits are referenced, the actual dose limit quantity should be provided as part of the plain language and transparency requirements for all Federal Agencies.

The Final SEIS should clarify if the PINGP is located in Dakota County (as stated in the Draft SEIS on the page before the Abstract) or Goodhue County (as stated in the Draft SEIS on Page 2-1, line 3).

Figures 2-2 and 3-1 in the Draft SEIS should be color coded or have improved resolution and shading.

The Draft SEIS does not include EPA's scoping letter dated June 6, 2007 on the list in Appendix E.

The Final SEIS should include a website for the GEIS and the radiological environmental monitoring program (REMP) documentation for the PINGP. Since these two documents are critical to understanding the information found in the Draft SEIS, the Final SEIS should inform the reader how to view these documents if they do not have Internet access.

Typographical Errors

Page 2-23, lines 22 and 23: "upstream Lock and Dam 3" should read "downstream Lock and Dam 3."

Page 2 -29, lines 26 and 27: "Table 2-4 and 2-5" should read "Table 2-9 and 2-10."

